

IN THE CLAIMS

The status of the claims is listed below.

Claims 1-133: (Canceled).

Claim 134 (Currently Amended): A vaccinating composition against a *Plasmodium* parasite which is infectious in man, comprising as an active principle a recombinant protein whose polypeptide sequence comprises:

a) a 19 kilodalton (p19) C-terminal fragment of a surface protein 1 of a merozoite form (MSP-1 protein) of a *Plasmodium* parasite that is infectious in man, other than *Plasmodium vivax*; which induces an immune response and which can inhibit parasitemia *in vivo* in a host infected with said *Plasmodium* parasite; wherein said C-terminal fragment remains anchored via a glycosylphosphatidylinositol group to the surface of said *Plasmodium* parasite at an end of its penetration phase into human erythrocytes during an infectious cycle and wherein said recombinant protein comprises conformational epitopes, which are contained in two epidermal growth factor regions and is unstable in a reducing agent, wherein said 19 kilodalton (p19) C-terminal fragment of the surface protein 1 of the merozoite form (MSP-1 protein) has atomic coordinates in Annexes I or III; and NMR fingerprints of Figures 12.0a to 12.0c or 12.2a to 12.2c; and

b) alum.

Claims 135-138: (Canceled).

Claim 139 (Currently Amended): The vaccinating composition of Claim 134, wherein said recombinant protein further comprises, upstream of said 19 kilodalton (p19) C-

terminal fragment, a polypeptide containing less than 50 amino acids of a C-terminal end of p33 of a MSP-1 protein of a *Plasmodium* parasite ~~parasite~~.

Claim 140 (Currently Amended): The vaccinating composition of Claim 139, wherein said C-terminal end of p33 is obtained from a cleavage of p42 of a same MSP-1 protein of a *Plasmodium* parasite ~~parasite~~.

Claim 141 (Previously Presented): The vaccinating composition of Claim 139, wherein said polypeptide contains less than 35 amino acids.

Claim 142 (Previously Presented): The vaccinating composition of Claim 140, wherein said C-terminal end of p33 is that end that is conserved in *P. falciparum*.

Claims 143-144: (Canceled).

Claim 145 (Currently Amended): A vaccinating composition against a *Plasmodium* parasite ~~parasite~~ which is infectious in man, comprising as a active principle a recombinant protein whose polypeptide sequence comprises:

a) a 19 kilodalton (p19) C-terminal fragment of a surface protein 1 of a merozoite form (MSP-1 protein) of a *Plasmodium* cynomolgi parasite that is infectious in man, and wherein said recombinant protein comprises conformational epitopes, which are contained in two epidermal growth factor regions and is unstable in a reducing agent; and

b) alum.

Claims 146-147: (Canceled).

Claim 148 (Previously Presented): The vaccinating composition of Claim 134, wherein said recombinant protein is conjugated to a carrier molecule.

Claim 149 (Previously Presented): The vaccinating composition of Claim 145, wherein said 19 kilodalton (p19) C-terminal fragment of the surface protein I of the merozoite form (MSP-1 protein) has the atomic coordinates in Annex I; and the NMR fingerprints of Figures 12.0a to 12.0c.

Claim 150 (Previously Presented): The vaccinating composition of Claim 143, which is hydrosoluble.

Claim 151 (Currently Amended): A recombinant protein whose polypeptide sequence comprises:

(a) a leader sequence comprising thirty-two amino acids of a surface protein I of a merozoite form (a MSP-1 protein) of *Plasmodium vivax* from Met<sub>1</sub> to Asp<sub>32</sub>; and

(b) a 19 kilodalton C-terminal fragment of a surface protein I of a merozoite form (a MSP-1 protein) of *Plasmodium falciparum* from Asn at amino acid position 3 to Ser at amino acid position 95 of SEQ ID NO: 1 which fragment induces an immune response which can inhibit parasitemia *in vivo* in a host infected with a *Plasmodium* ~~parasite~~ *parasite*.

Claim 152 (Currently Amended): A recombinant protein whose polypeptide sequence comprises:

(a) a leader sequence comprising thirty-two amino acids of a surface protein I of a merozoite form (a MSP-1 protein) of *Plasmodium vivax* from Met<sub>1</sub> to Asp<sub>32</sub>; and

(b) a 19 kilodalton C-terminal fragment of a surface protein 1 of a merozoite form (a MSP-1 protein) of *Plasmodium falciparum* from Asn at amino acid position 3 to Ile at amino acid position 116 of SEQ ID NO: 4 which fragment induces an immune response which can inhibit parasitemia *in vivo* in a host infected with a *Plasmodium* parasite ~~parasite~~.

Claim 153 (Currently Amended): A recombinant protein whose polypeptide sequence consists of:

(a) a leader sequence comprising thirty-two amino acids of a surface protein 1 of a merozoite form (a MSP-1 protein) of *Plasmodium vivax* from Met<sub>1</sub> to Asp<sub>32</sub> followed by Glu Phe; and

(b) a 19 kilodalton C-terminal fragment of a surface protein 1 of a merozoite form (a MSP-1 protein) of *Plasmodium cynomolgi* from Lys<sub>276</sub> to Ser<sub>380</sub> as shown in SEQ ID NO: 11 which fragment induces an immune response which can inhibit parasitemia *in vivo* in a host infected with a *Plasmodium* parasite, and wherein the fragment has atomic coordinates in Annex I; and NMR fingerprints of Figures 12.0a to 12.0c.

Claim 154 (Previously Presented): The recombinant protein of Claim 151, wherein said 19 kilodalton (p19) C-terminal fragment of the surface protein 1 of the merozoite form (MSP-1 protein) has atomic coordinates in Annex III; and NMR fingerprints of Figures 12.2a to 12.2c.

Claim 155 (Previously Presented): The recombinant protein of Claim 152, wherein said 19 kilodalton (p19) C-terminal fragment of the surface protein 1 of the merozoite form (MSP-1 protein) has atomic coordinates in Annex III; and NMR fingerprints of Figures 12.2a to 12.2c.

Claim 156: (Canceled).

Claim 157 (Previously Presented): The recombinant protein of Claim 151, which further comprises, upstream of said 19 kilodalton (p19) C-terminal fragment, a polypeptide containing less than 50 amino acids of a C-terminal end of p33 from a MSP-1 protein of a *Plasmodium* parasite.

Claim 158 (Previously Presented): The recombinant protein of Claim 152, which further comprises, upstream of said 19 kilodalton (p19) C-terminal fragment, a polypeptide containing less than 50 amino acids of a C-terminal end of p33 from a MSP-1 protein of a *Plasmodium* parasite.

Claim 159 (Canceled).

Claim 160 (Previously Presented): The recombinant protein of Claim 157, wherein said C-terminal end of p33 is obtained from a cleavage of p42 of a same MSP-1 protein of a *Plasmodium* parasite.

Claim 161 (Previously Presented): The recombinant protein of Claim 158, wherein said C-terminal end of p33 from a cleavage of p42 of a same MSP-1 protein of a *Plasmodium* parasite.

Claim 162 (Currently Amended): The recombinant protein of Claim 176 [[159]], wherein said C-terminal end of p33 is obtained from a cleavage of p42 of a same MSP-1 protein of a *Plasmodium* parasite.

Claim 163 (Previously Presented): The recombinant protein of Claim 157, wherein said polypeptide contains less than 35 amino acid residues.

Claim 164 (Previously Presented): The recombinant protein of Claim 158, wherein said polypeptide contains less than 35 amino acid residues.

Claim 165 (Currently Amended): The recombinant protein of Claim 176 [[159]], wherein said polypeptide contains less than 35 amino acid residues.

Claim 166 (Previously Presented): The recombinant protein of Claim 152, wherein said 19 kilodalton C-terminal fragment remains anchored to the surface of said *Plasmodium* parasite via a glycosylphosphatidylinositol group.

Claim 167 (Previously Presented): An oligomer of the recombinant protein of Claim 151.

Claim 168 (Previously Presented): An oligomer of the recombinant protein of Claim 152.

Claim 169 (Previously Presented): An oligomer of the recombinant protein of Claim 153.

Claim 170 (Previously Presented): The oligomer of Claim 167, wherein said oligomer comprises from 2 to 50 monomer units of a sequence of said recombinant protein.

Claim 171 (Previously Presented): The oligomer of Claim 168, wherein said oligomer comprises from 2 to 50 monomer units of a sequence of said recombinant protein.

Claim 172 (Previously Presented): The oligomer of Claim 169, wherein said oligomer comprises from 2 to 50 monomer units of a sequence of said recombinant protein.

Claim 173 (Previously Presented): The recombinant protein of Claim 151, which is conjugated to a carrier molecule.

Claim 174 (Previously Presented): The recombinant protein of Claim 152, which is conjugated to a carrier molecule.

Claim 175 (Previously Presented): The recombinant protein of Claim 153, which is conjugated to a carrier molecule.

Claim 176 (Previously Presented): A vaccinating composition against a *Plasmodium* parasite which is infectious in man, comprising as an active principle a recombinant protein whose polypeptide sequence comprises:

a) a 19 kilodalton (p19) C-terminal fragment of a surface protein 1 of a merozoite form (MSP-1 protein) of a *Plasmodium* parasite that is infectious in man, other than *Plasmodium vivax*; which induces an immune response and which can inhibit parasitemia in

*vivo* in a host infected with said *Plasmodium* parasite; wherein said C-terminal fragment remains anchored to the surface of said Plasmodium parasite at an end of its penetration phase into human erythrocytes during an infectious cycle, wherein said recombinant protein comprises conformational epitopes, which are contained in two epidermal growth factor regions and is unstable in a reducing agent and further comprises upstream of said 19 kilodalton (p19) C-terminal fragment, a polypeptide containing less than 50 amino acids of a C-terminal end of p33 of a MSP-1 protein of a *Plasmodium* parasite; and

b) alum.

Claim 177 (Currently Amended): A vaccinating composition against a *Plasmodium* parasite which is infectious in man, comprising as an active principle an oligomer of a recombinant protein whose polypeptide sequence comprises;

a) a 19 kilodalton (p19) C-terminal fragment of a surface protein 1 of a merozoite form (MSP-1 protein) of a *Plasmodium* parasite that is infectious in man, other than *Plasmodium vivax*; which induces an immune response and which can inhibit parasitemia *in vivo* in a host infected with said *Plasmodium* parasite; wherein said C-terminal fragment remains anchored to the surface of said *Plasmodium* parasite at an [[the]] end of its penetration phase into human erythrocytes during an infectious cycle and wherein said recombinant protein comprises conformational epitopes, which are contained in two epidermal growth factor regions and is unstable in a reducing agent, wherein said 19 kilodalton (p19) C-terminal fragment of the surface protein 1 of the merozoite form (MSP-1 protein) has atomic coordinates in Annexes I or III; and NMR fingerprints of Figures 12.0a to 12.0c or 12.2a to 12.2c; and

b) alum.